

### REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested in view of the above amendments and the following remarks.

Claims 1-18 remain pending in this application. By this amendment, Claims 1, 2, 5, 11, and 16-18 have been amended. Support for these amendments is found, by way of non-limiting example, in the specification page 9, lines 26-36. Accordingly, it is respectfully submitted that no new matter has been added.

In the outstanding Office Action, Claims 11-15 were rejected under 35 U.S.C. § 101 as directed to nonstatutory subject matter; Claims 1-5, 7, 8, 11 and 16-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sudo et al. (US 6,714,511 B1, hereinafter “Sudo”) in view of Heath et al. (US 6,850,498 B2, hereinafter “Heath”); and Claims 6, 9, 10, and 12-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sudo in view of Heath, and further in view of Lee (US 6,373,861 B1).

Applicants hereby express appreciation for the grant of a personal interview on October 7, 2009. During the interview the differences between the claimed subject matter and the cited references, in particular Heath, were discussed. During the interview reference was made to the specification description at page 9, lines 26-36 and the Examiner indicated that a proposed amendment to Claim 1 that reflects the dynamic adjustability of the guard band during operation would overcome the prior art of record. The above amendments to the claims and the discussion to follow are consistent with the discussion during the interview.

Claims 1 and 18 recite “a device configured to automatically adjust the length of the guard interval (GI) with regard to the existing size of the cell in which the transmitting unit is located.” Claim 11 recites:

estimating channel characteristics, also including  
producing/finding the existing size of the cell;

estimating least possible guard interval length which gives rise to an intersymbol interference within acceptable limits;

automatically producing/finding a guard interval parameter by a guard interval adjustment unit based on the guard interval length... .

Claim 16 recites “automatically adjusting the length of the guard interval (GI) with regard to the existing size of the cell in which the transmitting unit is located.” It is respectfully submitted that these features are neither disclosed by nor rendered obvious by Sudo, Heath, Lee, or any conceivable combination thereof.

The outstanding Office Action correctly recognizes that “Sudo does not disclose *controlling the length of the guard interval (GI) with regard to the size of the cell in which transmitting unit is located.*”

The Office Action subsequently asserts that Heath discloses these features taking into consideration the description in Heath from column 7, lines 1-10 including defining the settings of various transmission parameters including “the guard region” and “cell plan”.

Heath is directed to a system and method for evaluating a wireless link between a first transmitter and a first receiver in a multiple access communications system.<sup>1</sup> With reference to FIG. 2, Heath describes a transmitter 204 including a mode controller 224 that controls the transmission mode that is used to transmit each frame of information.<sup>2</sup> Heath indicates that “[a] transmission mode is defined by the settings of various transmission parameters.”<sup>3</sup> Heath explains “[e]xample transmission parameters which help to define a transmission mode include ... the guard region, ... cell plan ... .”<sup>4</sup> In Heath, “the transmission mode is selected

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<sup>1</sup> Column 2, lines 62-64.

<sup>2</sup> Column 6, line 66 to column 7, line 1.

<sup>3</sup> Column 7, lines 1-2.

<sup>4</sup> Column 7, lines 1-2.

to meet a pre-defined performance measure that is defined in terms of, for example, data rate, throughput, capacity, delay, and/or quality of service.”<sup>5</sup>

Heath makes clear that transmission mode is selected to meet pre-defined performance measures. There is no description in Heath of automatically adjusting a guard interval with regard to the existing size of the cell in which the transmitting unit is located. Therefore, Heath fails to describe the features of Claims 1, 11, 16, and 18 quoted above.

Lee fails to correct the deficiencies of Sudo and Heath described above, because Lee fails to describe the features of Claims 1, 11, 16, and 18 quoted above.

Regarding the rejection of Claims 11-15 under 35 U.S.C. § 101 as directed to nonstatutory subject matter, Claim 11 has been amended to recite “automatically producing/finding a guard interval parameter by a guard interval adjustment unit based on the guard interval length.” Thus, it is respectfully submitted that Claim 11 as amended is tied to a particular device. Accordingly, it is respectfully requested that this rejection be reconsidered and withdrawn.

It is respectfully submitted that dependent Claims 2-10, 12-15 and 17 are patentable at least for the reasons argued above with regard to the claims from which they depend.

Accordingly, it is respectfully requested that the rejections of Claims 1-18 be reconsidered and withdrawn, and that Claims 1-18 be passed to allowance.

Consequently, for the reasons discussed in detail above, no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

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<sup>5</sup> Column 7, lines 16-19.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below-listed telephone number.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, L.L.P.

A handwritten signature in black ink, appearing to read "Michael L. Gellner", is written over a horizontal line.

Gregory J. Maier  
Attorney of Record  
Registration No. 28,870

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 08/09)

Michael L. Gellner  
Registration No. 27,256